



Wildlife Watch

WILDLIFE MANAGEMENT ADVISORY COUNCIL (NORTH SLOPE)
COMMUNITY NEWSLETTER

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Yukon North Slope Research 2001 – 2002

WMAC(NS) reviews proposals for research projects related to wildlife management and ecological monitoring on the Yukon North Slope. Some of these projects are funded through the Inuvialuit Final Agreement.

Projects supported by the Council are recommended to Parks Canada, the Yukon Government's Department of Renewable Resources, the Government of the Northwest Territories' Department of Resources, Wildlife and Economic Development and the Canadian Wildlife Service. Recommendations are based on research priorities identified in the Yukon North Slope Long Term Research Plan, the Porcupine Caribou Management Plan, the ISR Grizzly Bear Management Plan, meetings with the Aklavik Hunters and Trappers Committee, the Aklavik HTC research priority list, community consultation at public meetings in Aklavik and research priorities identified at the Arctic Borderlands Ecological Knowledge Co-op annual gatherings. Reports on the Council's recommendations are conveyed to the Inuvialuit Game Council, the Aklavik HTC and the Environmental Impact Screening Committee.

WMAC(NS) monitors the progress of all recommended projects by requesting status reports and final reports from all agencies that receive funding.

Studies on the Porcupine Caribou Herd

Calving Surveys

Calving surveys were conducted again last summer. The object of the surveys is to get more information about the size of the Porcupine Caribou herd, the number of calves that were born and where they were being born. Fieldwork was based out of Kaktovik, Alaska. Researchers begin by locating the radio-collared cows to find out if they already have a calf. If they are still pregnant, they are relocated until they gave birth, and then again 1 or 2 days after the calf is born. Half or more of the calf deaths occur in the first 2 days so it is important to see how many survive this time period. At the end of June, all radio-collared cows are again located to record how many calves survived. The surveys were led by personnel from the Alaska Department of Fish and Game and coordinated with the Canadian Wildlife Service, Parks Canada, Yukon Renewable Resources and the U.S. Fish and Wildlife Service. *Ken Madsen photo.*



Photocensus and Composition Count

This work was done early in the summer as a way to estimate the total number of animals in the Porcupine Caribou herd and to find out how many bulls, cows, calves and yearlings are in the herd. When the insects come out in early July, caribou form very large groups, sometimes of many thousands of animals. This makes them easier to count. By using the radio collars, the large groups of caribou are located from a fixed wing aircraft flying very high. Once these large groups are found, one of the planes flies over them taking photographs at regular intervals. Smaller groups are either counted or photographed from the other search planes. A total of 414 photos were taken last summer. During the composition count, crews on the ground use spotting scopes to identify the numbers of bulls, cows, yearlings and calves. The results of the studies show that the herd size is approximately 123,000. This number includes over 18,000 calves. A photocensus is usually done on the herd every 3 years.



Radio Collaring

The radio collars that have been put on some of the caribou are very helpful in carrying out a number of important projects. They help researchers locate and identify individual caribou and are used to document winter range use. The collars have also been very important in showing how important the Arctic National Wildlife Refuge is to calving caribou. For the best results there should be between 80 and 100 radio collars on the herd. More collars need to be placed on caribou each year to replace the caribou that have died of natural causes. The U.S. Fish and Wildlife Service will do a fixed wing flight to locate

currently radio-collared caribou in March 2002. Once the location of herd is known, the collars will be put on some new caribou. Co-operating agencies purchase radio collars and the Yukon Government is responsible for putting them on the caribou. *GNWT photo*

Satellite Location Program

Many agencies are co-operating in this program to keep satellite collars on caribou cows. Satellite collars are less expensive to use when you want to find out about caribou movements because you don't need to use a plane or helicopter every time you want to know where the caribou are located. The satellite tracks the animals automatically and shows the general distribution of the herd. The satellite collars also provide valuable information about the timing and routes of the migrations. This project was started in 1997 when ten satellite collars purchased. Contributions from various organizations every year pay for satellite system fees and data retrieval. Interested agencies, organizations and schools in the Yukon, Alaska and the NWT are able to track the location of the collared caribou on the Internet (www.taiga.net/satellite/index.html) and through maps that are distributed once a week.

Muskox Management

Muskox Management Workshop

For a number of years, the expansion of muskox from northeast Alaska into the northern Yukon and the Northwest Territories, west of the Mackenzie River, has given rise to concerns regarding their ecological impact. It has also resulted in expressions of interest from local communities for a muskox harvest.

In response to these interests and concerns, the WMAC(NS) hosted a workshop, for three days in Aklavik, in October. The workshop brought together community, co-management board and government representatives, to exchange scientific and traditional knowledge about muskox behaviour, biology, distribution and population

size. The workshop also provided an opportunity to review and expand the scope of the Yukon North Slope Muskox Management Plan to include and meet the needs of all interested parties within the Canadian range of the population. Recommendations were made by workshop participants for regional allocations of the determined harvest quota.



Muskox Ecology Study

This is the last year of a 3-year project that is being conducted to learn more about the muskox on the Yukon North Slope. Information on the location and movement of the seven muskox, satellite collared in 1998, is being regularly received. This has helped researchers learn more about where the muskox like to live at different times of the year and how much they move around. Aerial surveys are conducted twice a year to determine the size and distribution of the muskox population. Studies are also conducted to determine the number of bulls and cows,

how many calves are born and how many calves survive. The aerial survey conducted in July 2001 counted a total of 192 muskox in 16 groups between the Alaska border and the Babbage River. The number of calves seen was low but there were a good number of yearlings and lots of bulls. This information helps to ensure their proper and effective management, and to assist in determining a sustainable harvest quota.

In March 2002, another count will be done and the muskox will be recaptured to remove the satellite collars.

Ken Madsen photo.

Ivvavik National Park

Sheep Surveys

The goal of this project is to determine the size, distribution, critical habitat and population structure of Dall's sheep in Ivvavik National Park, by conducting two aerial surveys. The study area is in the western portion of the British Mountains in Ivvavik National Park, between the Malcolm and Firth rivers, and includes the east side of the Firth River valley. A helicopter is used to search all potential sheep habitat within the study area. Animals sighted are counted, identified by age and sex and their location mapped using GPS. The survey completed this summer located 85 sheep and identified lambing cliffs. The second survey will be done in March to determine winter ranges. This study will also help to identify the research that may need to be done in future years and develop a long-term monitoring strategy.



Vegetation and Terrain Survey

This study involved collecting data on vegetation and terrain throughout the coastal plain of Ivvavik National Park so that it could be compared with data collected in 1988 and 1989. Climate change due to global warming has been changing the environment. This is really noticeable in the sub-arctic. Researchers will analyze the data collected to see if there are significant changes in vegetation and terrain attributes on the coastal plain over the past 12 to 13 year period. In the past three years, scientists conducting environmental monitoring on Herschel Island have recorded a profound change in the vegetation cover and significant changes in permafrost activity over a 15-year period. It is possible that the changes in vegetation and terrain occurring on Herschel Island may also be occurring on the coastal plain of Ivvavik National Park. A change in the vegetation cover of the coastal plain of Ivvavik could have significant implications for the region's wildlife and birds.

Coming Events:

Arctic Borderlands Ecological Knowledge Co-op Annual Gathering – Fort McPherson – Feb 28 and March 1-2

Additional North Slope Projects and Programs

A number of other projects and programs were recommended by the Council. These include:

- **Reproductive Ecology of Tundra Swans in the Mackenzie Delta Region.** This university research hopes to develop a way to monitor Tundra swans as an indicator of environmental health.
- **Identification of Yukon North Slope Polar Bear Denning Habitat.** The objective of this project is to map current and potential polar bear denning habitat on the Yukon North Slope.
- **Yukon North Slope Harvest Information.** This project will maintain the collection of trapping and hunting information from the Yukon North Slope. It will be conducted by YTG
- **Community-based Ecological Monitoring.** The objective of this program is to record observations of changes in the environment using local community experts and interviewers. This will be the sixth year of this program co-ordinated by the Arctic Borderlands Ecological Knowledge Co-op.
- **Old Crow Muskox Satellite Locations.** YTG is proposing to collar a muskox in the Old Crow region using a satellite collar that was recovered from a muskox that had died on the Yukon North Slope.
- **Herschel Island Vegetation Studies.** This is the continuation of a long-term multi-party program to obtain information on soils and vegetation, in order to better understand habitat use and ecology on the island.
- **Richardson Mountain Grizzly Bear Population Estimate.** This project will estimate the grizzly bear population size in the Richardson Mountains. Management of these bears is guided by the Co-management Plan for Grizzly Bears in the Inuvialuit Settlement Region, Yukon Territory and Northwest Territories. The last population estimate was done in 1992-93. The Aklavik Hunters and Trappers Committee has recently requested a review of the hunting quota, which necessitates a new population estimate. It is proposed to capture and mark the bears. The GNWT and YTG hope to conduct this project next summer.



Wildlife Management Advisory Council (North Slope)

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